



October 2, 2015

File: 76915-20/D720001-00 & D720002-00

Toby Seward  
Acting General Manager  
Community Development and Protective Services  
City of Nanaimo  
455 Wallace St  
Nanaimo BC V9R 5J6

Via Email: toby.seward@nanaimo.ca

Dear Mr. Seward:

**Re: Lower Chase River Dam Auxiliary Spillway Phase I Construction  
Leave to Commence Construction #1**

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Thank you for your correspondence dated September 30, 2015. I acknowledge that the City of Nanaimo is requesting approval for construction of the Auxiliary Spillway ("spillway") for the Lower Colliery Dam ("Lower Dam") be granted by this office in phases. Phase 1 of construction consists of:

- a) Auxiliary spillway excavation, and
- b) Cut-off wall construction using secant pile system.

Pursuant to Conditional Water Licence C061423, held by the City of Nanaimo (the "City"), which authorizes the storage of 140 acre feet of water behind Lower Chase River Dam (Lower Dam) as part of the Colliery Dam system on Chase River for the purpose of Land Improvement, I refer to the following correspondence in respect of construction of the Spillway for Lower Dam:

- City of Nanaimo. September 30, 2015. *Lower Chase River Dam, Auxiliary Spillway*. Letter to Glen Davidson from Toby Seward.
- Golder Associates. September 30, 2015. *Lower Colliery Dam Aux Spillway – Excavation Drawings*. Email from Bruce Downing, P.Eng. Golder Associates, to Toby Seward.
- Golder Associates. September 28, 2015. *Secant Caisson Wall Technical Specifications*. Nanaimo Colliery Dam Auxiliary Spillway, Nanaimo, BC.
- City of Nanaimo. September 4, 2015. *Middle and Lower Chase River Dams (Colliery Dams) Nanaimo – Compliance With Provincial Order*. Letter to Glen Davidson from Toby Seward.
- Golder Associates. September 4, 2015. *Auxiliary Spillway – Preliminary Design Report*.

<u>Drawing No.</u>	<u>Drawing Title</u>
• EX-1	Auxiliary Spillway – Cut-Off Wall and Excavation Plan
• EX-2	Auxiliary Spillway – Cut-Off Wall and Excavation Sections
• EX-3	Auxiliary Spillway – Excavation Section
• EX-4	Auxiliary Spillway Secant Pile Cut Off Wall Sections
• SSK-01	Cutoff Wall Pile Detail

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Ministry of Forests, Lands and  
Natural Resource Operations  
Resource Stewardship Division

Dam Safety Section  
Water Management Branch

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Victoria BC V8W 9M1  
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The information provided in the above noted correspondence meets the requirements of Sections 4 and 7.1 of the *BC Dam Safety Regulation*. I note the change in design from a three sided cut-off wall presented in the Golder Associates document *Auxiliary Spillway – Preliminary Design Report* dated September 4, 2015 to a single cut-off wall design presented in Drawing EX-1 among other minor changes in the proposed design.

On September 29, 2015 I completed a site walk-over of the spillway location to observe the site conditions and photograph construction progress to date. I found the site to be in good condition and well prepared to begin excavation activities.

**I hereby grant Leave to Commence Construction for the LCC #1 works consisting of the excavation of the spillway and construction of the secant pile cut-off wall subject to the following conditions:**

- a) Bruce Downing, P.Eng. is the Engineer of Record for the project,
- b) Bruce Downing will supervise construction of the project,
- c) Golder Associates will have a geotechnical engineer on site during excavation to observe subsurface conditions and report to Bruce Downing with respect to conditions observed and changes in design,
- d) Excavation of the auxiliary spillway area to be completed using the general dimensions and methodology detailed in Golder Associates drawings EX-1, EX-2, EX-3 and EX-4,
- e) Construction of the secant pile cut-off wall to be completed as detailed in the Golder Associates document *Secant Caisson Wall Technical Specifications*, September 28, 2015 and as detailed in the Herold Engineering Drawing SSK-01,
- f) Minor changes to the spillway excavation may be made and documented at the discretion of Bruce Downing, major changes will require approval from this office,
- g) Minor changes to the secant caisson wall may be made and documented at the discretion of Bruce Downing and Herold Engineering, major changes will require approval from this office,
- h) The City provide monthly updates as well as details of key milestones to my office,
- i) LCC #1 activities must be completed by October 30, 2015.

Please forward details of Phase 2 of the project to this office for approval once the information has been prepared.

If you or your consultant has any questions regarding this leave to commence construction, please direct them to my attention or to Wenda Mason or Scott Morgan.

Sincerely,



Robert McLean, P.Eng.  
Senior Dam Safety Engineer

pc: Ted Swabey, City Manager  
Glen Davidson, P.Eng. Comptroller of Water Rights, WMB, FLNR  
Wenda Mason, Manager, River Forecast Centre & Dam Safety Section, WMB, FLNR  
Scott Morgan, Head, Dam Safety Section, WMB, FLNR